



Suddenly, all the confusion
about matrix printers is over





The TermiNet[®] 200

The complete matrix printer

Suddenly, there's a new concept in hardcopy data printers. As you would expect, it's from General Electric, and it's the most forward-thinking matrix printer we've ever built. It's a printer as complete as technology will allow. It's a printer that defies the law of obsolescence by growing and changing as your needs change. It's a design concept other printers will follow.

It's the TermiNet[®] 200—the complete matrix printer.

Underneath its elegant exterior our engineers have packed all the speed, versatility and performance you may ever need.

Examine what it offers in standard, built-in features and you'll come away with a clearer idea of true printer value.

It's a lot of printers in one

This printer offers many features as standard equipment that you will pay extra for in other printers. Start with throughput. The TermiNet 200 line printer prints at 200 characters per second. Its printhead advances at 60 inches per second. It moves paper at 20 inches per second. That's more total speed than you'll find in most printers.

But we didn't stop there. The TermiNet 200 offers a choice of four print compressions. So if you need 10 and 12.94 characters per inch now, and 15 or 16.5 later on, all four are already built into the machine. That means you also have a choice of 136 print columns, 176, 204 or 224. And a convenient switch lets the operator choose to print 6 or 8 lines per inch. What's more, as a teleprinter, the TermiNet 200 offers a choice of 10, 20, 30 or 120 cps print speed, also switch-controlled.

Forms flexibility? The tractors adjust from either end of the carriage to accommodate various width forms from 2 inches to 16½ inches. Crisp, clean printing on up to 9-part forms is standard. And paper can be front- or rear-loaded.

Now consider convertibility. The TermiNet 200 printer can be changed from Keyboard Send/Receive to Receive Only, and to Line Printer and back again simply by changing out the keyboard/control panel and two circuit boards. A qualified service technician can do the job in 30 minutes.

Of course, the TermiNet 200 printer is interface-compatible with many data processing systems, so it can be quickly and easily interconnected with your system.

Simply the most powerful and versatile printer we've ever built

But don't make the mistake of thinking this is an over-designed, over-priced printer. You'll find the cost surprisingly low, whether you buy or lease.

The point is, finally you can settle on one printer for all your hardcopy data needs—with the confidence that you'll be able to stay with it.

If you have special requirements, rest easy. There are over 170 different tailored configurations available for the TermiNet 200 that can be changed easily in the field by means of board mounted switches.

The TermiNet 200 matrix printer. No other printer offers a more complete system of features to meet tomorrow's needs today. That's why we call it the complete matrix printer.

At a glance...

TerminiNet® 200 KSR/RO

Speed

- 200 characters/second maximum printing speed
- 60 in/sec printhead skip rate when tabbing
- 1K Buffer
- 20 inches/second paper slew

Print quality

- Long-life, easily replaceable printhead
- Straight-wire ballistic printhead design
- 7 x 9 matrix character formation
- Forms thickness lever
- Accepts up to 9-part forms
- Servo-controlled printhead

Paper handling

- Accepts 2-inch to 16½-inch widths
- Front and rear loading
- Vertical vernier paper position adjustment
- Optional horizontal paper position adjustment
- Six-pin tractor engagement
- Low paper sensor
- Paper out sensor

Broad application flexibility

- KSR, RO or Line Printer convertible
- Choice of switch-controlled print compressions
- Switch selectable six- or eight-lines/inch
- Memory module option provides programmable forms control
- Over 170 special dip switch strap options
- 13.6 inch long print line (136 columns at 10 characters/inch, 224 columns at 16.5 characters/inch.)

Operator Interface

- Convenience-engineered keyboard, controls
- Long-life, easy-change ribbon cartridge
- Low noise—meets ISO NR-60 acoustic noise standard
- Last character visibility
- Switchable end-of-line alarm position

TerminiNet® 200 Line Printer

Speed

- 200 characters/second maximum printing speed
- 60 in/sec printhead skip rate
- Two 256 character buffer
- 20 inches/second paper slew
- 100 kilo-character/sec data transfer
- Bi-directional printing

Print quality

- Long-life, easily replaceable printhead
- Straight-wire ballistic printhead design
- 7 x 9 matrix character formation
- Forms thickness lever
- Accepts up to 9-part forms
- Servo-controlled printhead

Paper handling

- Accepts 2-inch to 16½-inch widths
- Front and rear loading
- Vertical vernier paper position adjustment
- Optional horizontal paper position adjustment
- Six-pin tractor engagement
- Low paper sensor
- Paper out sensor
- Forms length switch, 1 to 199 lines

Broad application flexibility

- KSR, RO or Line Printer convertible
- Choice of four code or switch-controlled print compressions
- Switch selectable six- or eight-lines/inch
- Electronic form control option provides programmable forms
- Over 170 special dip switch strap options
- Micro-processor programmable interface
- 13.6 inch long print line (136 columns at 10 characters/inch, 224 columns at 16.5 characters/inch.)

Operator Interface

- Convenience-engineered controls
- Long-life, easy change ribbon cartridge
- Low noise—meets ISO NR-60 acoustic noise standard
- Front panel test switch

Engineered for the future, not the moment

Every printer is made up of basic components, so it is really how these components are engineered that matters.

Trouble is, the differences in design, engineering and quality are either difficult to see, or buried inside.

In the TermiNet 200 printer, the engineers have prevailed. Each component is designed to work with, and complement the action of the others.

General Electric's rich printer heritage pays off in dozens of important ways. Many of the same components and subassemblies that have proved reliable in other TermiNet printers are used in the TermiNet 200.

Little things are handled masterfully. Like the exclusive General Electric straight-wire ballistic matrix printhead. There are no curved wires or jeweled

guides to create heat and wear out quickly.

Furthermore, those wires are not affixed to clappers or hammers in the solenoid, they are free-floating. Fewer moving parts means longer trouble-free operation.

More than 100 million characters down the line, the printhead may need to be replaced. When it does, it can be easily replaced.

There are easier and cheaper ways to build printheads, but none that provide such superior print quality and long life.

Subtle things make the difference. Like using three separate motors to drive the printhead, the paper and ribbon system, most printers use only one or two. Ours is a more conservative design, but it's the one we chose because it's less likely to cause problems.

By the way, two of those motors are high-performance servos, not stepper motors, because servo motors provide smoother, more reliable operation.

Unsurpassed thruput package

Real thruput involves much more than characters per second. It also requires controlled, accurate movement of paper and printhead.

This is where experience pays more huge dividends. General Electric cut its teeth on high speed printers. We built a 510 cps printer before we built a 200 cps printer.

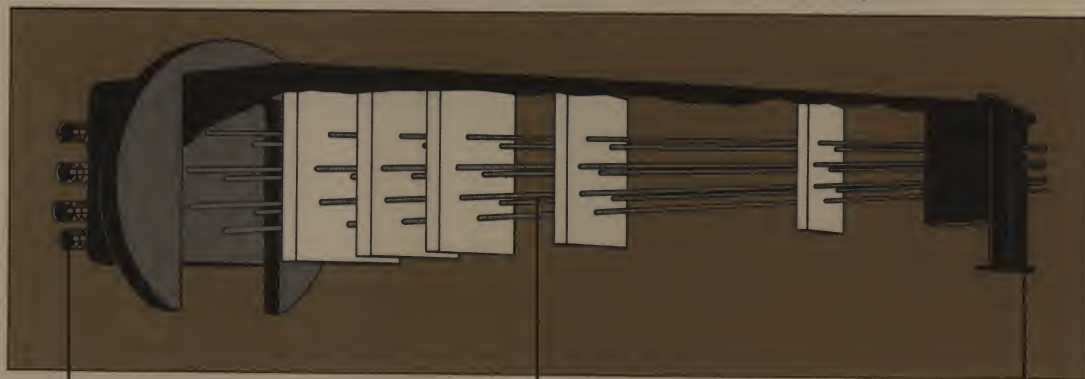
That means we learned long ago to harness speed. It means we know how to prevent paper jamming and all the other problems that can result from high speed output.

So when we say the TermiNet 200 printer delivers speed, we mean 1200 baud, 120 cps speed. Plus a 1K buffer to virtually eliminate fills. Which means you receive data four times faster than conventional printers. Four times faster! That's thruput that can reduce your phone line charges as much as 75%

Printhead System

Printhead is easily replaceable.

Separate servo motor for smoother, more reliable printhead operation.



Free-floating wires mean fewer moving parts and longer trouble-free operation.

Straight-wire design for less friction and heat for greater durability.

Exceeds 100 million character printhead life.

Excellent print quality

We didn't achieve that remarkable throughput at the expense of print quality. The TermiNet 200 printer uses a 7 x 9 matrix pattern, compared to the 7 x 7 or 5 x 7 most printers offer. That means much improved character resolution—clear, crisp, readable printouts, down to the ninth copy.

Complementing the superior printhead design is General Electric's long-life ribbon cartridge system, which prints millions of characters before it needs to be replaced. In the line printer, the ribbon can be re-inked for even longer service.

There's no smudging while printing because the ribbon advances only when the printhead is activated by data. And there's no smudged fingers when changing the ribbon because the entire cartridge snaps out for clean, easy replacement.

Low maintenance goals achieved

General Electric engineers set high standards for themselves when it comes to keeping a printer on line. One of the key design goals for the TermiNet 200 was to make it possible for a qualified technician to service any part of the printer in just 30 minutes or less. Remarkable as it may seem, they achieve that goal.

They did it by keeping hardware and moving parts to a minimum. Basically the TermiNet 200 is an electronic device—even the keyboard is solid-state. And all the components are packaged for easy servicing. Every component is accessible without removing any other component or enclosure.

The electronics are highly integrated and partitioned according to function. For example, one circuit board controls the servos. The circuit boards have light-emitting diodes to help the service technician quickly diagnose and repair malfunctioning components.

Swift, safe, sure paper handling

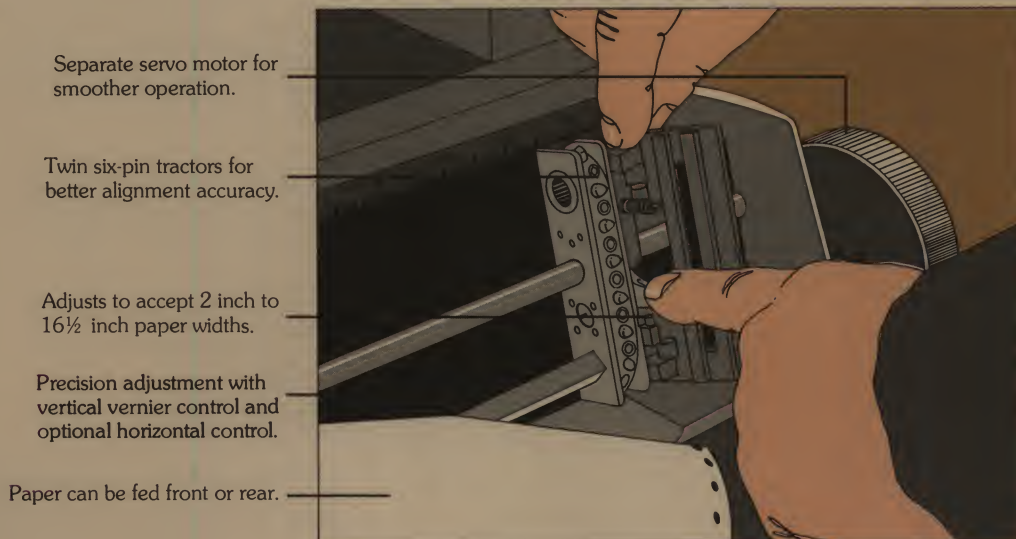
Printers depend on paper handling systems—and General Electric's dependability is well known.

In a nutshell, it's servo-driven, stall-protected against jamming, feeds from the front or rear, accepts 2- to 16½-inch paper widths and functions perfectly on multiple forms of up to 9 copies.

If that doesn't leave you breathless, consider the precision adjustment made possible by vertical vernier control and optional horizontal control. Most printers offer only one or the other.

Even more impressive is the total alignment accuracy assured by the twin six-pin tractors that engage and feed the paper. Paper is always perfectly parallel to the printhead and positioned so print can't go anywhere but on a selected line.

Paper Handling



Convenience-engineered for operators

We could fill a book with what experience has taught us about making printers easier for people to use. Rather than write a book, we put all our knowledge to practice in the TermiNet 200.

For openers, the solid-state keyboard is light and responsive to the touch, the layout friendly as a typewriter. All the critical communications controls are located on the front face of the printer—away from the keyboard, where they might be struck accidentally.

The operator is totally in control. A touch of the finger controls baud rate, local or on-line operation, automatic line feed, last-character visibility, low-paper detection, margins and tabs and many more functions.

And, a point that operators will particularly appreciate, the TermiNet 200 is a quiet printer.

Everybody promises service, GE delivers

In a recent survey of printer users conducted by an independent research firm, 88% of the responding TermiNet printer users said that General Electric's service organization had responded satisfactorily to their service requests.

That's not perfect, but we think it is a pretty remarkable statement in a day when after-sale service is critical to keeping printers on line. Those survey results didn't happen by accident.

We work hard to maintain a responsive, expert service organization, close to all our customers. Today, we have a nationwide network of over 100 service centers, where factory-trained and qualified service technicians stand ready to diagnose and solve your printer problems. Each of these centers offers flexible service designed to match the way you use your printer.

We're proud of our service organization, but we aren't resting on our good reputation. We can't afford to. We've got to find some way to win over that other 12%.

The bottom line: lowest cost per character

Excellence runs deep in the TermiNet 200 printer. But when all the talk about engineering, performance and reliability is over, the bottom line is still economics. You want the printer that delivers the lowest cost per character. Period.

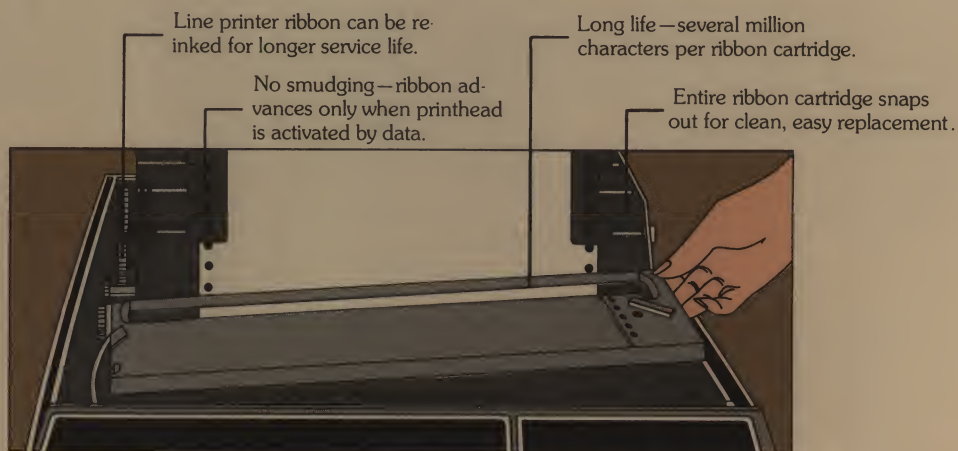
Ultimately, that may be the most impressive thing about the TermiNet 200 printer.

Its thruput package translates to great savings in phone line charges—as much as 75% less than conventional printers.

Now calculate the savings contributed by the long list of high-performance features, long-life components, uncompromised General Electric reliability, and the service to keep you on-line.

We think you'll conclude that the TermiNet 200 saves you money every time it prints a character.

Ribbon System



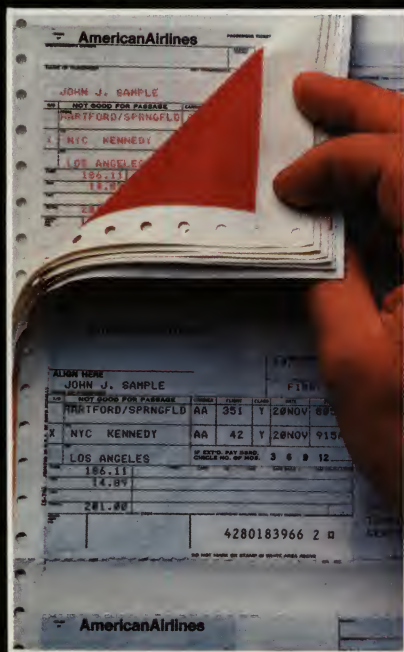
More Standards. Fewer Options.



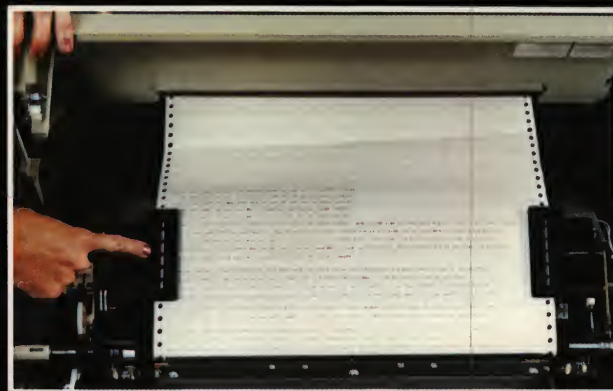
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The TermiNet 200 printer offers many features as standard equipment that you will pay extra for in other printers. However, there are a limited number of options available to meet personal performance requirements.

1. Option – Paper Tape Reader and Punch
2. Option – Magnetic Tape Terminal
3. Standard – Nine-Copy Multi-form Selector
4. Standard – Six-pin Tractor Form Control
5. Option – TermiNet 9610 Communication Controller
6. Option – Pedestal

Other options available for the TermiNet 200 include diskette storage terminal and dataset and line controls. More standards, fewer options make the TermiNet 200 the complete matrix printer.

SPECIFICATIONS KSR/RO

DATA TRANSMISSION

Code: USASCII	Speed: 10, 20, 30, 120 characters/sec operator selectable
Interface: EIA Standard RS232C; optional full RS232C including circuit CI for type 212A data set	Mode: Full or Half-duplex operator selectable
	Type: Asynchronous—Crystal Clocked

PRINTING

Type: Impact; original and 8 copies	Line Length: 136 print positions	Available
Spacing: 10 char/inch horizontal standard; Optional compressed modes of 12.94, 15 or 16 char/inch	Paper: Printer has adjustable pin feed paper tractor for use with continuous form sets or other fanfold edge punched paper from 2 to 16.5 inches wide: Horizontal and vertical fine adjustable	Characters: 94 printable graphics character set, upper and lower case, strap selectable for upper set only
Line Spacing: 6 and 8 lines/inch switch selectable		Ribbon: Cartridge

OPERATOR CONTROLS

Controls:		Indicators:
Motor On/Off	Power	Motor On
Here Is	Transparency	Alarm
Interrupt	All Caps	Ready
Speed Select	FDX/HDX	Power On
Line Feed	Form Feed	Interrupt
Paper Load	Single/Double LF	Head Position
	Local	Paper Position
	Paper Advance	
	Auto LF	
	6/8 line/inch	
	Forms Thickness	
	EOL Alarm Setting	

ELECTRICAL

Operating voltage: 117 (Optional voltages: 100, 117, 200, 220, 240)
VAC \pm 10%, single phase 50/60 Hz
 \pm 1 Hz

PHYSICAL CONFIGURATION

KSR: Length—26" (34.4 with paper rack)	RO: Length—21.6"
Width—28"	Width—28"
Height—13.4"	Height—13.4"
Weight—80 lbs.	Weight—75 lbs.

ENVIRONMENTAL

Temperature: +32°F to +110°F Operating
—40°F to +160°F Storage
Humidity: 10% to 95% Operating and
Non-operating (Non-condensing)
Altitude: 0—12,000 Feet Operating
0—50,000 Feet Storage

FOR FURTHER INFORMATION:

DATA COMMUNICATION PRODUCTS BUSINESS DEPARTMENT WAYNESBORO, VIRGINIA 22980 • PHONE (703) 942-8161

GE TermiNet printers are available from many major suppliers of computers, computer-time sharing services, data communication systems and leasing companies.

Contact in U.S.A.: Your local GE Data Communication Products Business Department Sales Office;
In Canada: Canadian General Electric Co., Ltd., 396 Attwell Drive, Rexdale, Ontario, Canada M9W5C3;
Outside of U.S.A. and Canada: International Sales, Waynesboro, VA 22980.

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 **datacare bv**
huis ter heideweg 28
postbus 2 - 3700 aa zeist
telefoon 03404-21344 telex 40116